| Tuesday, March 05, 2013 1:48:14 PM | | | *980 | 174* | | | | | | | Page 1 |
|---|----------------|-----------------------------|----------------------|---------------------|--------|--------------|---------------|--------------|---------------|------------------|----------------|
| Item ID: D3166-3 Revision ID: Item Name: Basket Hoop | 10 | *** | Accept | *N900 | | 100 |)* | Setup (| Start Stop | | S1* S2* |
| Start Date: 3/5/2013 Start Qty Required Date: 3/19/2013 Req'd Qt Reference: | | *34* | | Cust Item Customer: | ID: | | | | | | |
| Approvals: Process Plan:QC: | , . | Date: 13-5 | Tooling: SPC (Y/N): | | ate: | - |] | | Start Stop | | R1* R2* |
| Sequence ID/ Operation Work Center ID Description | | · · | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Rejec Qty | | leject Iumber | Insp. Stamp |
| Draw Nbr Revision Nbr | ; | | | | | , | ٠. | 1 | | | -, x |
| D3166 Rev A1 | 1 | | | | | | | | 12 | | e e e |
| *100 *100* Large Fab | Memo | | 0.00 | | | | 10 | | SAL | 0 13- | 24-72 |
| Large Fab | Cut 3/4" x 3/4 | 4" square tubing 120.00" lo | ng. | | | | | | | | |
| 110 | | | 0.00 | | | | | | | | * * |
| *110* CNC Bend 1 | Memo | -3 Basket Hoop as per Dwg | 0.00 | | | | 10 | | SAD | 13 | 2-04-09 |

120

QC6- Inspect dimensions to drawing

0.00

120

Memo

0.00

Quality Control

(is) 13·

(00

| | | | | | | | | | | | | DQA: | Date: | : |
|---------------------------|--------------------|------------|------------|----------|--------|----------------------------|-----|---------------------|---------------------|---------------------------------------|----------|--------------|---------------|--------------------|
| NCR: | Yes | / No | | | | WORK ORDER NON-O | 100 | NFORM | AANCE / UP | DATE | | · | | |
| | | | | | | | | | | · · · · · · · · · · · · · · · · · · · | | QA Closed: | Date | • |
| Work Orde | or: | | ` | | | DISPOSITION | | i | | AGA | INST DEI | PARTMENT | PROCESS | |
| WORK Orde | ٠ | | | | | Rework | 1 | Skid-tube Crosstube | | | tube | | Water Jet | Engineering |
| Part N | No. | | | | | Scrap | 1 | | Machining Small Fab | | | Pro | d. Eng. Coor. | Quality |
| | - | | | | | · — 1 | | | noforming | Finis | hing | Rec/Stor | e/Packaging | Other |
| NCR I | NCR No. | | | | | Work Order Update |] | | Large Fab | Compo | osite | | Supplier | |
| Poet | . 1 | | | | Descri | ption of work order update | | nitial | Δς | tion | | Sign & | | |
| Root | | Date | Step | Qty | | or Non-conformance | 1 | ief Eng | | ription | | Date | Verification | QC Inspector |
| Cause | | Date | step | Qty | | of Non-comormance | 1 | ilei Liig | Desc | приоп | | Date | Vermedion | Qe mspector |
| Doc/Data Equip/Tooling | H | | | | | | | | } | | | • | | |
| Operator | Н | | | | i | • | | | | | | | * | |
| Material | H | | | | | | | | | | , | · | | |
| Setup | Н | | • | | | | | | | | | | | |
| Other | Н | | | | | | | | | | | | , | , |
| Process | H | | | | | | | | | | | | - | |
| Supplier | П | | [| | | | İ | | | | | | | |
| Training | П | | | | | | | | | | | | | |
| Unapproved | П | | | | | | | | | | | | | |
| | | | | | | F | AUL | T CATE | GORY | | | | | |
| Landi | ng G | ear | | | | General | | _ | | | | • | | - |
| | | Bending | | | | Bend | | Grain | | | | Ovalized | L | Pressure/Forced |
| | | Centre No | ot Conce | ntric to | o/s | BOM/Route | | Hardwa | re | | | Over/Under | tolerance | Temperature/Cure |
| | | Cracks | | | | Broken/Damaged | | Inspecti | ion Incomplete | | <u> </u> | Part Incorre | ct | Weld |
| | | Crushed/ | Crimped. | | | Burrs | | Instruct | ions Incomplete/ | Unclear | <u> </u> | Part Lost/Mi | ssing | Wrong Stock Pulled |
| | Cuffs Contain | | | | | Contamination | | Mainte | nance | | | Part Moved | | |
| | Heat Treat Counter | | | | | Countersink | | Mislabe | led | | <u> </u> | Positioned V | Vrong | |
| | | Inspection | n Strip in | Tube | | Cut Too Short | | Misread | | | | Power Loss/ | Surge | Other |

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

| Work Ord Tuesday, March | | | | *980 | 74* | | | | | Page 2 |
|---|---------------------|--|--------------------|------------------------------|--------------------------|------------------|---------|-----------|----------------|-------------|
| Item ID: Revision ID: Item Name: | D3166-3 Basket Hoop | St. 101 2400 | *0.4 | Accept | *N900 | | ገበ* | Setup Sta | 14.7 | 1* 2* |
| Start Date: Required Date: Reference: | 3/5/2013 | Start Qty: 34.00 Req'd Qty: 34.00 | *34 *34 | | Cust Item I Customer: | D: | | | | |
| Approvals: | Process Plan:QC: | | Date: | Tooling: SPC (Y/N): | Da | | Run Sta | "INK | _ | |
| Sequence ID/ Work Center II | D | Operation Description Identify as per dwg & Stor | ck Location: WAO | Set Up/ Run Hours 0.00 | Tool ID | Tool # Pla Co | _ | Qty | Number St | tamp |
| *130* Packaging Packaging | | Мето | | 0.00 | | | (| 0) 13 | -0422 <u>k</u> | 2 89 |
| 140 * 1 1 1 1 1 1 1 1 | | QC21- Final Inspection - | Work Order Release | 0.00 | | | | 13 | 14/23 | A |

0.00

Memo

Quality Control

1804-22°

| | | | | | | | | | | | | DQA: | Da Da | ate: | · |
|---------------|------------------------------|--------------------------|----------|-----|--------|----------------------------|-----|-------------------|---|-----------|--|--|--------------|------|--|
| NCR: | Yes | / No | | | | WORK ORDER NON- | COI | NFORM | MANCE / UPI | DATE | | | _ | | |
| | | | | | | | | | | | | QA Closed: | Da | ate: | |
| Work Ord | ~ " . | | | | | DISPOSITION | | AGAINST DEPARTMEN | | | | | PROCESS | | |
| Part | • | | | | | Rework Scrap Use-as-is | | | Skid-tube Crosstube Small Fab Thermoforming Finishing | | | Water Jet Prod. Eng. Coor. Rec/Store/Packaging | | | Engineering Quality Other |
| NCR No. | | | | | | Work Order Update |] | ŧ | Large Fab | Composite | | | Supplie | r | |
| Root | | | | | Descri | ption of work order update | | Initial | Act | ion | | Sign & | | | |
| Cause | | Date | Step | Qty | (| or Non-conformance | Cł | nief Eng | Descr | iption | | Date_ | Verification | òn | QC Inspector |
| Doc/Data | | | | | | | | | | | | | | | |
| Equip/Tooling | | , | | | i, | | | | | | | | , | ~ | |
| Operator | | | | | : | | | | | | | | | | <i>₹</i> |
| Material | | | | | | | | | | | | | | | |
| Setup | | | | | | | | - | | | | | | | |
| Other | | | · | | | | | | | | | · · | | | |
| Process | | | <u> </u> | ł | | | | | <u> </u> | | | | | | `e |
| Supplier | | | | | | | | | | • | | * | | | |
| Training | | | | 1 | | | } | | | | | | | | • |
| Unapproved | | | | | | | | | | | | | | | |
| | | | | | | | AUI | LT CATE | GORY | | | | | | <u>. </u> |
| Landi | ing (| Gear | | | | General | | - | | | | • | | | 1 |
| | | Bending | | | | Bend | | Grain | | | | Ovalized | | L | Pressure/Forced |
| | Centre Not Concentric to O/S | | | | | BOM/Route | | Hardwa | re | į | | Over/Under | tolerance | | Temperature/Cure |
| | Cracks | | | | | Broken/Damaged | L | Inspecti | on Incomplete | | | Part Incorre | ct . | | Weld |
| | Crushed/Crimped | | | | | Burrs | | Instruct | ions Incomplete/I | Jnclear | | Part Lost/Mi | ssing | | Wrong Stock Pulled |
| | Cuffs | | | | | Contamination | | Mainte | nance | | | Part Moved | | | |
| , | | Heat Trea | at | | | Countersink | | Mislabe | led | | | Positioned V | Vrong | | _ |
| | | Inspection Strip in Tube | | | | Cut Too Short | | Misread | | | | Power Loss/ | Surge | Г | Other |

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish Folio

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Picklist Print

Tuesday, March 05, 2013 1:48:18 PM

Work Order ID: 98074

Parent Item:

D3166-3

98074 *D3166-3*

Parent Item Name: Basket Hoop

Start Date: 3/5/2013

Required Date: 3/19/2013

Page 1

Start Qty: 34.00

Required Qty: 34.00

Comments:

IPP A02.08.23New issueKJ

IPP Rev:B 09-01-23 as per DEO D3166-A2 DD verified by:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | - • | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|-----------|-------------|--------------|---------------|----------------|--------|
| M304TS0.750W.065 | | Purchased | No | | | 100 | f | 1,350.211 | 10 | 357.8947 | | | |
| *M304TS0 | | 065* | | | | | | | ** | SAC |) 程 | 13- | 04-22 |

| Location | Loc Qty | Loc Code | |
|-----------------|------------|------------|----------|
| MAT017 | 973.158 | | |
| 124069 | 973.158 | | |
| WA006 | 377.053297 | | |
| 123303 | 377.053297 | M125068 -1 | 05.26.32 |

| WORK ORDER MON CONFORMANCE / LIDDATE | |
|--|------------------------|
| NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: | Date: |
| DISPOSITION AGAINST DEPARTMENT/PROC | |
| Nork Order: | And Late 1 |
| Part No. Scrap Machining Small Fab Prod. Eng. Use-as-is Thermoforming Finishing Rec/Store/Pack | kaging Other Other |
| NCR No Work Order Update Large Fab Composite Su | upplier |
| Root Description of work order update Initial Action Sign & | |
| Cause Date Step Qty or Non-conformance Chief Eng Description Date Veri | ification QC Inspector |
| oc/Data | |
| quip/Tooling | . [] |
| perator | 1. |
| laterial | |
| etup | |
| ther | |
| rocess | |
| upplier | |
| raining | |
| napproved | |
| FAULT CATEGORY | |
| Landing Gear General | Pressure/Forced |
| Bending Bend Grain Ovalized | · |
| Centre Not Concentric to O/S BOM/Route Hardware Over/Under tolerar Cracks Broken/Damaged Inspection Incomplete Part Incorrect | weld |
| | Wrong Stock Pulled |
| Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Cuffs Contamination Maintenance Part Moved | |
| | |
| | Other |
| Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Ripples in Bend Drill Holes Offset | Joiner |
| Torque Waves in Extrusion Drawing Out of Calibration | |
| Turning Sequence Finish Out of Sequence | |
| | |





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|-------|-------|----------|--|---------|
| DESIG | # | DRAWN BY | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| CHEC | KED | APPROVED | DRAWING NO. | REV. A |
| | # | 4 | D3166 SHEET | 1 OF. 1 |
| DATE | | | TITLE | SCALE |
| 02.0 | 07.10 | | BASKET HOOP | NTS |
| Α | | 02.07.10 | NEW ISSUE | |
| Aı | delli | 04.04.08 | 38+/-1 WAS 36.0 | |

DEO ATTACHED

R12.0

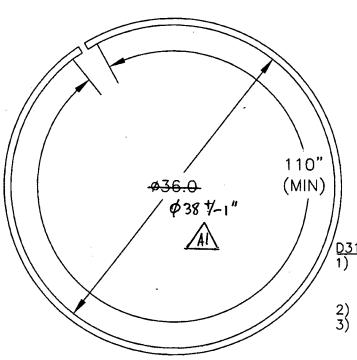
10.6 (REF, NEED 8.0 MIN)

D3166-1 BASKET HOOP

1) MATERIAL: AISI 304/316 SS SQUARE TUBING. 0.75" x 0.75" x 0.063 WALL, 60.00" LONG (REF DART SPEC. M304TS0.750W.063)

2) FINISH: NONE

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



7 son

D3166-3 BASKET HOOP

MATERIAL: AISI 304/316 SS SQUARE TUBING, 0.75" x 0.75" x 0.063 WALL, 120.00" LONG (REF DART SPEC. M304TS0.750W.063)

2) FINISH: NONE3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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| NCR: Y | NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE | | | | | | | | | | | | | | |
|---------------|---|-----------|----------|-----|----------------------------|----------|----------------------------|-----------|--------------|---------------|--------------------|--|--|--|--|
| | | | | • | | | | | QA Closed: | Date | | | | | |
| Work Orde | er: | | | | DISPOSITION | | AGAINST DEPARTMENT/PROCESS | | | | | | | | |
| | | † | , | | Rework |] | Skid-tube | Crosstube |] | Water Jet | Engineering | | | | |
| Part N | lo. | | | | Scrap | 1 | Machining Small Fab | | | d. Eng. Coor. | Quality | | | | |
| | _ | | | | Use-as-is | The | rmoforming | Finishing | Rec/Sto | e/Packaging | Other | | | | |
| NCR N | lo | | | | Work Order Update |] | Large Fab | Composite | | Supplier | | | | | |
| | | | | | | | | | | | | | | | |
| Root | | | | | ption of work order update | Initial | | tion | Sign & | | | | | | |
| Cause | Date | Step | Qty, | • | or Non-conformance | Chief Er | g Desc | ription | Date | Verification | QC Inspector | | | | |
| Doc/Data | | | | | | | | | | | | | | | |
| Equip/Tooling | | | | | | | | | | * . | | | | | |
| Operator | _ | | | | | | | | | | | | | | |
| Material ' | | 1 1 | | | | | | | | | | | | | |
| Setup | | | | | | | | | | | | | | | |
| Other | | | | | | | | | | | | | | | |
| Process | | | | | | } | | • | | | | | | | |
| Supplier | | | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | |
| Unapproved | | | | | | | | | | | | | | | |
| | | <u> </u> | | | F | AULT CA | EGORY | a | | | | | | | |
| Landir | ng Gear | | | | General | | | | - | _ | _ | | | | |
| | Bending | | | | Bend | Grain | 1 | | Ovalized | | Pressure/Forced | | | | |
| | Centre No | Conce | ntric to | O/S | BOM/Route | Hard | ware | <u>L</u> | Over/Under | tolerance | Temperature/Cure | | | | |
| | Cracks | 1 | | | Broken/Damaged | Inspe | ction Incomplete | <u></u> | Part Incorre | ct | Weld | | | | |
| | Crushed/0 | irimped | - | | Burrs | Instru | ictions Incomplete/ | /Unclear | Part Lost/M | issing | Wrong Stock Pulled | | | | |
| | Cuffs | | | | Contamination | Mair | tenance | | Part Moved | | | | | | |
| Ī | Heat Trea | ţ | | | Countersink | Misla | beled | | Positioned \ | Vrong | _ | | | | |
| Ī | Inspection Strip in Tube | | | | Cut Too Short | Misre | ad | | Power Loss, | Surge | Other | | | | |
| Ī | Ripples in | Bend | | | Drill Holes | Offse | t | - | | | | | | | |
| | Torque | aves in I | Extrusio | , | Drawing . | Out | f Calibration | | | | | | | | |
| Ī | Turning S | equence | • | | Finish | Out | f Sequence | | | | | | | | |
| | Wave/Tw | | | | Folio | Outsi | de Dimensions | | | | | | | | |

DQA: _____ Date: ____

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| DRAWING NO. | TITLE | , REVA1 | DART AERO | SPACE LTD | D.E.O. NO. | SHEET NO. | SCALE |
|-------------|-------------|---------|------------|-----------|---------------|---------------|-------|
| D3166 | BASKET HOOP | | ENGINEER | ING ORDER | D3166-A-2 | 1 OF 1 | NTS |
| DRAWN AJ | CHECKED | ls | MFG. APPR. | 1 | APPROVED // | DE APPR | |
| DATE 08.12 | .11 DATE 08 | 2.15 | DATE OX | 12/15 | DATE 05/12/16 | DATE 08.12.16 | |

1) MODIFY MATERIAL NOTE FOR D3166-1 AS SHOWN:

IS:

1) MATERIAL: AISI 304/316 SS, 3/4 X 3/4 X 0.065 WALL SQUARE TUBING, 60.00" LONG

REF. DART SPEC M304TS0.750W.065

WAS:

1) MATERIAL: AISI 304/316 SS SQUARE TUBING, 0.75" x 0.75" x 0.063 WALL, 60.00" LONG (REF DART SPEC. M304TS0.750W.063)

2) MODIFY MATERIAL NOTE FOR D3166-3 AS SHOWN:

IS:

1) MATERIAL: AISI 304/316 SS, 3/4 X 3/4 X 0.065 WALL SQUARE TUBING, 120.00" LONG
REF. DART SPEC M304TS0.750W.065

WAS:

1) MATERIAL: AISI 304/316 SS SQUARE TUBING, 0.75" x 0.75" x 0.063 WALL, 120.00" LONG (REF DART SPEC. M304TS0.750W.063)



REASON: SEE PAR 08-005

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| | | | | | | | | | | DQA: | D | ate: _ | |
|---------------|--|-----------|------------|-------------------|--|----------|--|-------------------|--|--------------------------------------|-------------|----------|---------------------------|
| NCR: Ye | es / No | | | | WORK ORDER NON-O | CON | FORN | MANCE / UPE | DATE | QA Closed: | , D | ite: | 4 |
| Work Orde | r. | | | | DISPOSITION | | | | AGAINST DE | PARTMENT | PROCESS | | |
| Part N | 0 | | | • | Rework Scrap Use-as-is Work Order Update | | Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite | | | Prod. Eng. Coo Rec/Store/Packagin | | | Engineering Quality Other |
| Root | | | | Descri | ption of work order update | lr | Initial Action | | | Sign & | | | , |
| Cause | Date | Step | Qty | | or Non-conformance | Chi | ef Eng | Descr | iption | Date | Verificațio | on | QC Inspector |
| Doc/Data | | } | | | | | | | | | ; | | : |
| Equip/Tooling | | | | | | | | | | | | | |
| Operator | _ | | | | | | - | | | | | | |
| Material | | | | | | | | 1 | | | | 1 | |
| Setup | | | | | | | | | | | i | | |
| Other | _ | | | | | | | | | | | | |
| Process | | | | | | . | | | | , | i | | |
| Supplier | | 1 | | | | | | | | | , | | |
| Training | | | | | | | | | | | | | |
| Unapproved | | <u> </u> | ئے ہا | | | | | CORY | | <u> </u> | | | |
| | | | | | | AULI | CATE | GORY | | | | 1 | |
| Landin | Bending | | | | General Bend | \Box | Grain | | | Ovalized | 1 | | Pressure/Forced |
| | Centre No | at Cancar | atric to 1 | \s\- | BOM/Route | \vdash | Hardwa: | ro | - | Over/Under | tolerance | \vdash | Temperature/Cure |
| · } | Cracks | or Concer | itiic to t | ^{3/3} - | Broken/Damaged | - | | on Incomplete | | Part Incorre | | \vdash | Weld |
| | Crushed/0 | Crimned | | <u> </u> | Burrs | - | | ions Incomplete/U | Inclear | Part Lost/Mi | î i | 1 | Wrong Stock Pulled |
| · | Cuffs | cinnped. | | - | Contamination | \vdash | Mainte | • | - I | Part Moved | 33.1.8 | ــــا | |
| F | Heat Trea | ıt | | \vdash | Countersink | | Mislabe | | <u> </u> | Positioned V | Vrong | | • |
| · | Inspection Strip in Tube Cut Too Short | | | | | | Misread | | | Power Loss/ | - 1 | | Other |
| | Ripples in Bend Drill Holes | | | | | | Offset | - | <u>. </u> | | | | |
| } | Torque Waves in Extrusion Drawing | | | | | | | Calibration | | | | | |
| <u> </u> | Turning Sequence Finish | | | | | | | Sequence | | | , | | |
| <u> </u> | Wave/Tw | | | | Folio | | | Dimensions | | | | | , |

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